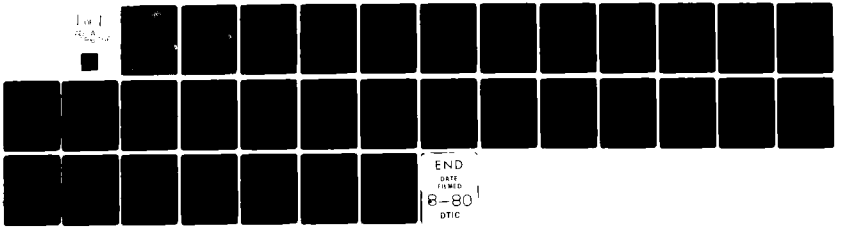
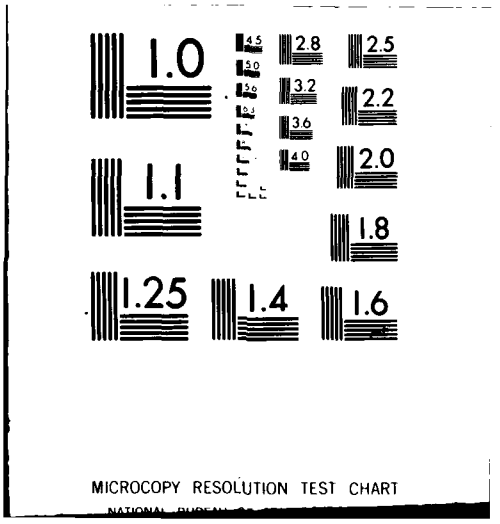
AD-A086 756 HOUSTON UNIV TEX DEPT OF PSYCHOLOGY F/G 5/1
A MULTIVARIATE INVESTIGATION OF EMPLOYEE ABSENTEEISM.(U)
MAY 80 J R TERBORG, G A DAVIS, F J SMITH N00014-78-C-0756
UNCLASSIFIED TR-80-5 NL



END
DATE FILMED
8-80
DTIC


1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
MICROCOPY RESOLUTION TEST CHART

LEVEL II

PAPERS ON THE BEHAVIOR OF INDIVIDUALS AND GROUPS IN COMPLEX ORGANIZATIONS

PROGRAM IN INDUSTRIAL
ORGANIZATIONAL PSYCHOLOGY

DEPARTMENT OF PSYCHOLOGY

UNIVERSITY OF HOUSTON
HOUSTON, TEXAS 77004

12

A Multivariate Investigation of Employee Absenteeism

James R. Terborg & Gregory A. Davis

University of Houston

Frank J. Smith

Sears Roebuck

&

Mark S. Turbin

University of Illinois

Technical Report 80-5

May 1980

Prepared with the support of the Organizational Effectiveness Research Program, Office of Naval Research (Code 452), under Contract No. 00014-78-C-0756, NR 170-877.

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER: 80-5 ✓
2. GOVT ACCESSION NO.: AD-A086 756
3. RECIPIENT'S CATALOG NUMBER:

(6) 4. TITLE (and Subtitle): A Multivariate Investigation of Employee Absenteeism.

5. TYPE OF REPORT & PERIOD COVERED:

6. PERFORMING ORG. REPORT NUMBER:

(10) 7. AUTHOR(s): James R. Terborg, Gregory A. Davis, Frank J. Smith, Mark S. Turbin

8. CONTRACT OR GRANT NUMBER(s): No. 00014-78-C-0756 ✓

9. PERFORMING ORGANIZATION NAME AND ADDRESS: Department of Psychology, University of Houston, Houston, Texas 77004

(11) May 80

10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS: NR 170-877

11. CONTROLLING OFFICE NAME AND ADDRESS: Organizational Effectiveness Research Program, Office of Naval Research, Arlington, VA 22217

12. REPORT DATE: May 1980

13. NUMBER OF PAGES: 31

14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)

(14) TR-80-5 (12) 33

15. SECURITY CLASS. (of this report): UNCLASSIFIED

15a. DECLASSIFICATION/DOWNGRADING SCHEDULE:

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited

(15) N00014-78-C-0756

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

(9) Technical Repts

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Absenteeism
Multivariate
Job Satisfaction
Differential Validity
Personal Variables
Organization Variables

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Survey data on attitudes and demographic characteristics were collected from 136 full-time and 123 part-time retail employees in seven stores of the same organization. Personal variables were unrelated to absences. Satisfaction with work, pay, and co-workers were predictive of absences but the correlations were small. Examination of organization location effects showed mean differences across stores on several variables and differential validity was observed across stores. Importance of situational factors is discussed.

DD FORM 1 JAN 73 1473 EDITION OF ...V 65 IS OBSOLETE
S/N 0102-L...14-6601

388227

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

A Multivariate Investigation of Employee Absenteeism

Studies on employee absenteeism have become more prevalent in the past few years. This possibly reflects a trend in the field to focus on behaviors rather than on attitudes as criteria. Although the act of being absent is not as clear cut as once believed (Muchinsky, 1977), it is a behavior that can be measured and it is of both practical and theoretical interest. In the present paper, we briefly summarize two recent reviews of the absenteeism literature, and describe a predictive study of absence behavior.

Muchinsky (1977) and Steers and Rhodes (1978) independently reviewed past research on absenteeism and made similar observations. Steers and Rhodes (1978), however, developed a model of absence behavior around their review. Because our study has potential to examine some of Steers and Rhodes' ideas, we will discuss the two reviews separately.

Muchinsky (1977) examined the literature with a focus on personal/demographic variables and attitudinal variables. With regard to personal/demographic variables, he found the following relationships: women had more absences than men; distance from work and size of family were positively related with number of absences; tenure was negatively related with number of absences; and the relationship between age and absenteeism was inconsistent. With regard to attitudinal variables he found the following relationships: overall job satisfaction was negatively related with number of absences; satisfaction with work itself was negatively related with number of absences; and satisfaction with the job facets of co-workers, pay, promotion, and supervision were unrelated to number of absences. Muchinsky noted that there were few attempts to examine individual absences as a function of organizational variables. The most common was organization or unit size. Size was positively

related to rate of absenteeism in the unit. He also noted rather severe problems with the measurement of absenteeism. Out of 70 studies reviewed, only six reported reliabilities of the absenteeism measure. There also was a lack of comparability of absence measures across studies with many studies not even reporting a definition of absence behavior.

Steers and Rhodes (1978) reviewed 104 studies on absenteeism and suggested that attendance is directly influenced by the factors of (1) motivation to attend and (2) ability to attend. Motivation to attend was said to be a function of satisfaction with the job situation and pressure to attend. Ability to attend was said to be a function of personal/family characteristics, illness, and transportation factors. The inclusion of ability to attend was made because situational factors such as family responsibilities may interfere with a decision to go to work (cf. Ilgen & Hollenback, 1977; Morgan & Herman, 1976) regardless of the person's attitudes.

Both Muchinsky (1977) and Steers and Rhodes (1978) discussed implications for future research. One area needing attention is the operationalization of the absence measure. This includes issues of reliability and validity. Second, multivariate studies should be conducted where the relative importance of various personal, attitudinal, and organizational factors can be determined. And third, future research should consider managerial and sales personnel as opposed to blue-collar and clerical personnel, which make up the bulk of previous samples.

The present study was designed to contain features suggested by Muchinsky (1977) and by Steers and Rhodes (1978). Attitudinal data and personal data were collected from part-time and full-time retail sales people in seven stores belonging to the same retail organization. Following this, daily

records of absenteeism were kept by the personnel department for 11 consecutive weeks. In contrast to much of past research, our study used a predictive design as opposed to a concurrent design.

Based on Steers and Rhodes (1978) and Muchinsky (1977) the following predictions were made. Absenteeism would increase with distance from work and with family size. These factors should have a negative impact on ability to attend work. Women would have more absences than men. This stems from assumed increased family responsibilities on the part of women (cf. Terborg, 1977). Finally, because part-time employees often work fewer hours than full-time employees even when they work the same number of days per week, we predicted that part-time employees would have fewer situational problems and therefore fewer absences than full-time employees.

Satisfaction with the job situation was assessed with the Job Descriptive Index (JDI) (Smith, Kendall, and Hulin, 1969). A faces scale on overall satisfaction also was administered. Assuming job content to be more salient than job context (cf. Steers and Rhodes, 1978), satisfaction with work and overall job satisfaction were predicted to be negatively correlated with absences. Because past research with the JDI indicates mixed relationships between absenteeism and satisfaction with pay, promotions, co-workers, and supervision (Newman, 1974; Nicholson, Brown, & Chadwick-Jones, 1976; Waters & Roach, 1973), no predictions for these job facets were made.

Pressure to attend was indexed in two ways. Following Steers and Rhodes (1978), organizational commitment was predicted to be negatively related to absenteeism. In contrast to Steers and Rhodes (1978), however, we believe that tenure should be included as a factor associated with pressure to attend. Pay frequently goes up with tenure, so missing work without pay could have

greater consequences for high tenure employees. Also, by virtue of long tenure, these employees have engaged in committed behavior to the organization (Salancik, 1977). Personal and social norms might go against being absent (cf. Ilgen & Hollenback, 1977). We predicted that tenure would be negatively related to absenteeism. Because age tends to be correlated with tenure, we also expected a negative correlation between age and absenteeism, however, no formal prediction is made.

Finally, the present study allows for examination of organization location effects. Data were collected from seven stores of similar size in seven urban locations. This means that personnel practices, technology, organization structure and other organization factors were constant. Based on results reported by Nicholson, Brown, and Chadwick-Jones (1976), we predicted that organization location would be unrelated to absences. Stated another way, we expected generalizability of relationships across the seven stores. Finding an effect for location, however, would be important. It could limit our confidence in extending results to different stores in the same organization, to different organizations, or to organizations with different technologies. And, it could address issues of person and situation main effects and interactions with regard to attitudes and absence behavior.

Method

Sample

Attitudinal data were collected as part of a larger study dealing with job attitudes of full-time versus part-time employees. Approximately 50 employees were selected using a random stratified sampling procedure at each of seven stores. The objective of this sampling approach was to obtain roughly equal proportions of males and females and of full-time and part-time employees.

Once employees were selected, they were asked to voluntarily participate in the project and were given paid release time from work to do so. A total of 297 people across seven stores participated. Complete data, however, were collected from 259 people, and this will be the data base for the results in this study. Our request for personal identification on the attitude surveys may have reduced the response rate. The sample was similar to the population of employees in the seven stores, based on store demographic data. There were 136 full-time employees, and 84 male employees. The average age was 37.3 years and the average tenure at this organization was 6.8 years.

Assessment of Attitudinal and Personal Variables

Job satisfaction was assessed with the JDI (Smith, Kendall, & Hulin, 1969). The JDI was chosen because it is a reliable and valid measure and because several past studies on absenteeism have used it. Our use of the JDI enhances the comparability of our results with past research. In addition to the JDI, a faces type scale was included assessing overall job satisfaction (cf. Kunin, 1955). Organizational commitment was assessed with the 15-item scale developed by Porter (Porter, Steers, Mowday, & Boulian, 1974).

Data also were collected on personal variables. These included part-time versus full-time job status, sex, age, tenure, family size, and distance from work. Family size was assessed by asking how many children at the grade-school age or younger were living at home. Distance from work was measured by simply asking how many miles the employee lived from work.

Assessment of Absence Behavior

Muchinsky (1977) and Steers and Rhodes (1978) were extremely critical of past research attempts to measure absenteeism. In the present study, we chose to follow the work of Nicholson, Brown, and Chadwick-Jones (1976).

Based on previous reliability and validity work, they identified three measures of absenteeism: total number of days absent, total number of absence occasions, and total number of attitudinal absences. Attitudinal absences are defined as the number of one or two-day absences. Absence occasions are defined as the number of times a person was absent regardless of the length of each occasion. To collect these data in the present study, Personnel Department staff in each store kept a record of daily attendance behavior for store employees. This record began within two weeks of the administration of the attitude survey and continued for eleven consecutive weeks. Although we would have preferred to have collected absenteeism data for a period longer than eleven weeks, we were unable to do this as it was an inconvenience to the Personnel Department. It should be noted, however, that this organization regularly keeps track of number of absences. Frequent absences can result in disciplinary action. But, because the organization is interested in total number of absences they keep a running total for each employee but do not maintain a daily log. We were unable to access this internally monitored measure for supplemental analysis.

Results

Evaluation of Absence Measures

During the eleven-week period there were a total of 93 days lost due to absences for which employees were not paid. The average number of unpaid days absent per employee during the eleven-week period was .36 days. Assuming the typical employee works 50 weeks per year, this means that the average number of unpaid days absent per year would be 1.6 days. This figure is low compared to the estimated national average of 5.1 days lost per employee per year reported by Steers and Rhodes (1978). We will have more to say later about this low base rate.

Our first concern was to examine the intercorrelations among the three different operationalizations of absenteeism. The correlations between total days absent, number of absence occasions, and number of attitudinal absences, were in the .90's. In other words, when most people were absent, they were absent one day at a time. Consequently, we decided to limit analyses to the total number of days lost measure. A second question we considered was the reliability of absence behavior. We computed reliability of absence behavior by correlating the number of absences during odd-numbered weeks with the number of absences during even-numbered weeks for all 259 employees. The estimated reliability for unpaid absences over the entire 11-week period was $\underline{r}$ = .57, which was significant. We also computed reliabilities for full-time and part-time employees and for male and female employees. The estimated reliabilities for all four employee groups ranged from a low of $\underline{r}$ = .49 for full-time employees to a high of $\underline{r}$ = .63 for part-time employees, which were significant. Finally, we considered the reliabilities of absence behavior within each of the seven stores. Across six of the stores, the estimated reliabilities for the 11-week period ranged from a low of $\underline{r}$ = .33 to a high of $\underline{r}$ = .77, which were all significant. In the seventh store, computation of odd-even reliability was a problem because of the extremely low base rate, only one person missed one day of work. But, here people reliably showed up for work even though our use of internal consistency reliability did not show this. Overall then it would appear that our measure of unpaid absence behavior during the 11-week period demonstrated minimally acceptable levels of reliability.

Examination of Predictions

Hypotheses were tested by computing the correlation between each predictor and the total number of unpaid absences. The intercorrelation matrix

and the means and standard deviations for each variable are presented in Table 1.

- - - - - - - - - - - - - - -

Table 1 about here

- - - - - - - - - - - - - - -

Ability to attend work was assessed with job status, sex, family size, and distance from work. We predicted that family size and distance from work would be positively correlated with absenteeism. However, this was not the case as the correlations were $\underline{r}$ = .05 and $\underline{r}$ = .01, respectively. We also predicted that females would have a greater number of absences than males and that full-time workers would have a greater number of absences than part-time workers. These predictions also were not supported with the correlations being $\underline{r}$ = .03 and $\underline{r}$ = .02, respectively, for sex and job status. It should be noted that a possible confound exists when we attempt to examine job status and absenteeism. If part-time workers are scheduled fewer days than full-time workers they might be expected to have fewer absences simply due to the fact that they work less often. To address this issue, the attitude survey contained a question that asked each employee to indicate on the average how many days per week they work. A $\underline{t}$-test was conducted between part-time and full-time employees. There was a significant difference, $\underline{t}$ = 2.07, $p < .05$, with full-time employees working 4.9 days per week and part-time employees working 4.6 days per week. We do not consider this statistically significant difference to be of much practical importance however. Over an 11-week period, full-time employees would work 53.9 days whereas part-time employees would work 50.6 days. This difference of 3 days combined with the overall low base rate of absenteeism suggests that we can conclude no difference in absenteeism as a function of job status. In summary, none of the predictions made from the standpoint of ability to attend work were supported.

Based on Steers and Rhodes (1978), and on Muchinsky (1977), we predicted that satisfaction with work and overall job satisfaction would be negatively correlated with absences. No predictions were made for satisfaction with the facets of pay, promotion, supervision, or co-workers. As shown in Table 1, satisfaction with work correlated $\underline{r} = -.12$, $p < .05$, with absences whereas overall satisfaction as measured with the Faces scale was uncorrelated with absences. In contrast to past research, satisfaction with pay and satisfaction with co-workers were significantly negatively correlated with absenteeism, $\underline{r} = -.20$ and $\underline{r} = -.14$ respectively. Pay satisfaction was the strongest predictor of absenteeism. Satisfaction with promotion and supervision were not related to absenteeism. Overall, these data lend some support to the belief that job satisfaction would be weakly but negatively related to absenteeism. The correlations are, however, extremely small.

Pressure to attend, the second component of motivation to attend work, was operationalized using organizational commitment and tenure. We predicted that both variables would be negatively correlated with absenteeism. Because age should correlate with tenure, we also expected age to be negatively correlated with absenteeism. The results supported the predictions although again the correlations were quite small. Organizational commitment correlated $\underline{r} = -.11$, $p < .05$, tenure correlated $\underline{r} = -.16$, $p < .05$, and age correlated $\underline{r} = -.19$, $p < .05$.

The next issue we wanted to address was whether or not organization location would have an effect. Recall that data were collected from seven retail stores belonging to the same organization, and that all surveyed employees were retail sales people. This is important, because if organization location has an effect when job type, industry type, and organizational policy are held

constant, then there would be little reason to expect consistent results across different studies that sample from different industries and different job levels. It also raises the question of generalizability from data collected at only one location. Much of the research in our field is of this type. A one-way analysis of variance was conducted with the seven stores as independent variables. Significant differences among stores were found on the following variables: age, tenure, distance from work, satisfaction with work, satisfaction with pay, and total number of unpaid absences. Interestingly, the two stores most discrepant on absenteeism rates were also significantly different from each other on average age of employees, tenure, distance from work, satisfaction with work and satisfaction with pay. The store with the lowest absenteeism rate had older employees with high tenure who lived close to work and were satisfied with work and pay.

In order to more closely examine these results, the relative effects of store location, attitudinal variables, and personal variables were investigated in a series of hierarchical regressions using total number of unpaid absences as the criterion. The results of these analyses are presented in Table 2. Specifically, we constructed 3 groups of variables and entered each group in a

- - - - - - - - - - - - - - -

Table 2 about here

- - - - - - - - - - - - - - -

hierarchical fashion varying the order of entry. Stores were dummy-coded and this constituted one group of variables. A second group was attitudinal variables and these consisted of satisfaction with work, pay, promotion, supervision, co-workers, the overall job, and organizational commitment. A third group was personal variables and these consisted of job status, sex, age, tenure, family size, and distance from work. When knowledge of store location

was entered on the first step or on the second step following personal variables in the regression equation it accounted for a significant proportion of variance in absenteeism, but when it was entered third in the equation it was not significant. When employee attitudes were entered first in the regression equation they accounted for a significant proportion of variance, but only when attitudes were entered second in the equation following the inclusion of personal variables were the attitudinal variables significant. Attitudinal variables failed to account for a significant proportion of variance when they were entered in the second step following inclusion of store location or when they were entered in the third step. Finally, when personal variables were entered in the first step they too accounted for a significant amount of variance, but the only other time personal variables were significant was when they were entered in the second step following attitudinal variables. Thus we find that all variable sets accounted for a significant proportion of the variance when they were entered first in the equation, but when they were entered last in the equation none of the variable sets accounted for a significant proportion of variance. The overall R^2 for the entire set of variables was .15, which was significant but rather small. Computation of the shrunken R^2 using the Lord-Nicholson correction formula resulted in a drop of .01 units to R^2 = .14. Clearly, the regression analyses provide different results depending on the order of entry of the variable sets. This also means, that if in the present study we had not assessed personal variables and store location variables, we may have come to the conclusion that attitudinal variables account for a significant although small proportion of variance in absenteeism. That interpretation, however, would not be entirely correct.

To further examine the effect of store location on the relationship be-

tween personal and attitudinal variables and absenteeism, zero order correlations were computed with absenteeism as the criterion in each of the seven stores. Evidence of differential validity was found for the variables of part-time versus full-time job status, sex, family size, satisfaction with work, satisfaction with pay, satisfaction with promotions, satisfaction with co-workers, and organizational commitment. This was determined by comparing the two most discrepant correlations across the seven stores for any particular bivariate relationship and testing for the difference between correlations. The store with only one absence did not contribute to finding differential validity so the possibility of a statistical artifact due to extreme range restriction can be ruled out. Finding differential validity casts even greater doubt on our ability to generalize results from one organizational setting to another. It also stresses the importance of collecting data from several units in the same organization or from different organizations whenever possible.

Discussion

The results of this study provide mixed support for the model of attendance motivation proposed by Steers and Rhodes (1978). Variables thought to index ability to attend work were unrelated to unpaid absenteeism. This could be due to several factors. There may have been a restriction in range on some of the variables. Family size, for example, was rather small with the average number of children grade-school age or younger living at home being 1.03. Similarly, the average distance from work was less than 3 miles. These range restriction reasons, however, would not apply to the failure to find relationships between employee sex or job status and absenteeism. A second explanation for why these variables did not predict absenteeism is that ability

to attend was never assessed directly. The variables used in the present study were surrogate variables of ability to attend. Perhaps more direct questions such as reliance on public transportation or even a rating of problems getting to work should have been used. Alternatively, employees might be asked to respond to a variety of hypothetical situations such as "What happens when your child becomes ill and needs to be taken to the doctor?", with probability statements or behavioral intentions indicating the likelihood that they would be at work. A third explanation for the lack of predictor relationships could be that some other factor or factors were affecting absenteeism among all employees. It does not seem reasonable to attribute the low base rate in absenteeism behavior to unusually high levels of satisfaction or organizational commitment. Compared with normative data, scores found on these attitudinal variables are about average.

Variables thought to index pressure to attend work produced different results. Organizational commitment was significantly related with absenteeism, although the size of the relationship was rather small. Steers (1977) also found evidence of a negative relationship between organizational commitment and absenteeism. Although little research has considered relationships between organizational commitment and absenteeism behavior, it would seem that evidence of commitment on the part of an employee might better be reflected in behaviors that are easy to do and have short-term consequences such as absenteeism rather than in behaviors that are more involved and have long-term consequences such as turnover. Tenure and age were significantly related with absenteeism: older employees with more tenure were absent less frequently. But, the correlations again were small. As we expected, age was highly correlated with tenure, $\underline{r}$ = .52. Commitment, however, was uncorrelated with tenure, even though we expected

that tenure would be a reflection of increasing satisfaction with the organization and increasing binding of attitudes and behavior consistent with the decision to remain a member of the organization. Overall, the results for variables used to index pressure to attend were consistent with past research. It should be noted, however, that Steers and Rhodes (1978) proposed many additional variables with regard to pressure to attend that we did not assess.

The results for job satisfaction provide some support for the model by Steers and Rhodes. Specifically, there seems to be a weak but consistent negative relationship between satisfaction with work and absenteeism. In contrast with past research, satisfaction with pay and with co-workers also were negatively related to number of days absent. There was no relationship between satisfaction with promotion or satisfaction with supervision and absenteeism.

Because satisfaction with pay is a system-level variable that is relatively easy to change by management, at least when compared to supervision, work, and co-workers, we thought it might be useful to estimate the change in absenteeism that might occur if satisfaction levels were increased by one standard deviation. Regressing absenteeism on pay satisfaction produced a raw score regression weight. Multiplying this weight times one standard deviation above the mean level of pay satisfaction produced an absenteeism rate that would be expected to equal .88 days absent per employee per year. Thus, we estimate that raising satisfaction with pay by one standard deviation would lower absenteeism by almost 50 per cent from 1.60 to .88 days absent per employee per year. This reduction, however, must be interpreted in the context of a low base rate in absenteeism, an already existing moderately satisfied sample of employees, and that the notion of causality between satisfaction with pay and absenteeism is assumed to be correct.

For us, the most interesting finding in the present study was the demonstration of organization location effects. These effects were found both with regard to differences in means and differences in predictive validities. Much research published in our journals rely on data that were collected at a single organization location. Our results suggest that the ability to generalize at least with regard to employee attitudes and absenteeism, may be more limited than we would like to think. These results support the observation by Roberts, Hulin, and Rousseau (1978) that only our methodologies and not our results generalize. Because past research on absenteeism has been conducted primarily in one organization or at one organizational level, we do not know whether our results are typical. They are unsettling, however, and suggest the need to collect data from different organizations or from different units and/or organizational levels. If data do not generalize across different units in the same organization where job-type, unit size, organizational policy, and other factors are held constant, then why would we expect results to generalize when these factors vary?

The regression results presented in Table 2 are difficult to interpret. Both Muchinsky (1977) and Steers and Rhodes (1978) argued for multivariate research where the relative contribution of various individual and organizational factors could be determined. Based on our results, we cannot conclude whether one set of variables are more important than another set of variables. These results also stress the need to collect data other than attitudes, and the necessity of considering alternative orders of variable entry in regression models. If, for example, only job satisfaction and organizational commitment had been assessed in the present study then we may have concluded that these attitudinal variables predict absenteeism behavior. Given our results, this

is not necessarily accurate.

Evidence of mean differences across stores and of differential validity across stores suggests several alternative explanations. Absenteeism rates may be different because the composition of the work force across similar stores was not uniform. Or, stores may have different absenteeism rates because of some underlying differences in the operation of the stores that are reflected in differences in levels of employee satisfaction. A third explanation could be that store operation affects both the composition of the work force as well as the satisfaction of the work force, and that it is this other factor that has primary impact on individual absenteeism and on overall store absenteeism rates. Other factors to be considered might include aspects of the environments in which the stores are located. Cost of living, local unemployment rates, availability of public transportation, availability of childcare facilities and so forth are just a few factors that were not assessed in the present study yet could be relevant for explaining differences in both attitudes and absenteeism.

Evidence of differential validity merits some discussion. Schmidt and Hunter (1976) provide evidence of validity generalization in the area of ability testing when other factors such as sample size, restriction of range, and reliability are taken into consideration. It may be that if we controlled for these factors we also would find little evidence of differential validity. We wonder, however, whether by controlling for restriction of range, reliability, and other factors that might vary across situations if in fact we are not statistically removing situational variance and then concluding that the situation has little effect. It also should be noted that whereas we found evidence of differential validity on 8 out of 13 variables, for each variable there would

be a total of 21 correlations that could be examined to produce evidence of differential validity. That is, given seven stores there would be a total of 21 different pairs of correlations that could be tested for statistical significance. Thus, we would expect to find evidence of differential validity by chance alone in at least one of those 21 tests. This assumes, however, that there is no reliable underlying relationship between the predictors and criterion. Based on past research, this assumption is probably unwarranted.

Recent research on absenteeism has neglected to consider salient characteristics in the situation that might affect absenteeism behavior. With a few exceptions (cf. Ilgen & Hollenback, 1977; Morgan & Herman, 1976; & Smith, 1977), research has focused on employee attitudes as predictors of absenteeism behavior. We concur with Muchinsky (1977) and Steers and Rhodes (1978) in their request for more broadly based designs that include a variety of situational variables in the study of absenteeism. Our results convince us of the potential effects of situational factors. Situational factors might moderate the relationship between attitudes and behavior through affecting a person's ability to engage in the behavior. Or, situational factors may affect absenteeism directly. In our study we found a rather low rate of individual absenteeism behavior. It was not until we observed this that we thought to consider the personnel practices of the organization with regard to paid and unpaid absenteeism. We found, as expected, that the organization had a rather strict policy concerning paid absenteeism. The organization also maintained absenteeism records for use in salary merit and termination decisions. In short, the consequences of being absent in this organization probably were more negative compared to consequences in other organizations. Yet, our review of the literature on absenteeism shows that only in a few limited cases

have researchers either considered personnel practices as a factor or mentioned it in the discussion of their results. Whereas, attempts to collect data across different organization types and across different personnel practices is difficult to do, we believe that such research must be conducted if a cumulative knowledge of absenteeism is to develop. Alternatively, we suggest that future researchers make attempts to report such factors as unemployment rates, personnel practices, job type and level, and technology. If this would be done, then the emerging mosaic of results would begin to show a pattern. For example, we might expect attitudes to predict absenteeism in organizations where paid absences are relatively frequent but not when paid absences are relatively infrequent. Similarly, we might expect attitudes to predict absenteeism on jobs where brief periods of release-time for personal activities are hard to get. In contrast, we might not expect attitudes to predict absenteeism among managerial personnel, because these employees often are able to conduct errands and temporarily leave work without having to take an entire day off from work.

The present study improved on past research in several ways. First, attempts were made to consider the reliability of absenteeism behavior. Second, the use of retail sales employees as opposed to blue-collar or clerical employees represents a different employee sample. Third, data were collected from seven different units of the same organization. This allowed for investigation of organization location effects. Finally, an attempt was made to consider the relative effects of attitudinal variables, personal variables, and organizational variables. The results were consistent with past research showing a weak but reliable relationship between job satisfaction and absenteeism, but, these results were not independent of personal or organizational variables. No support was found for the predicted relationships between

ability to attend work and absenteeism, although this may have been due to the fact that ability to attend work was measured indirectly. Finding significant effects due to organization location merits additional research emphasis. We propose that both characteristics of persons and of situations, and person by situation interactions be considered in the conceptualization and design of new research on employee absenteeism.

References

Ilgen, P.R., & Hollenback, J.H. The role of job satisfaction in absences behavior. Organizational Behavior and Human Performance, 1977, 19, 148-161.

Kunin, T. The construction of a new type of attitude measure. Personnel Psychology, 1955, 8, 65-77.

Morgan, L.G., & Herman, J.B. Perceived consequences of absenteeism. Journal of Applied Psychology, 1976, 61, 738-742.

Muchinsky, P.M. Employee absenteeism: A review of the literature. Journal of Vocational Behavior, 1977, 10, 316-340.

Newman, J.E. Predicting absenteeism and turnover. Journal of Applied Psychology, 1974, 59, 610-615.

Nicholson, N., Brown, C.A., & Chadwick-Jones, J.K. Absence from work and job satisfaction. Journal of Applied Psychology, 1976, 61, 728-737.

Porter, L.W., Steers, R.M., Mowday, R.T., & Boulian, P.V. Organizational commitment, job satisfaction, and turnover among psychiatric technicians. Journal of Applied Psychology, 1974, 59, 603-609.

Roberts, K.H., Hulin, C.L., & Rousseau, D. Developing an interdisciplinary science of organizations. San Francisco, California: Jossey-Bass, 1978.

Salancik, G.R. Commitment and the control of organizational behavior and belief. In B.M. Staw and G.R. Salancik (Eds.), New directions in organizational behavior, Chicago, Ill.: St. Clair Press, 1977.

Schmidt, F.L., Hunter, J.E., & Urry, V.W. Statistical power in criterion related validation studies. Journal of Applied Psychology, 1976, 61, 473-485.

Smith, F.J. Work attitudes as predictors of specific day attendance. Journal of Applied Psychology, 1977, 62, 16-19.

Smith, P.C., Kendall, L., & Hulin, C.L. The measurement of satisfaction in work and retirement. Chicago, Ill.: Rand McNally, 1969.

Steers, R.M. Antecedents and outcomes of organizational commitment. Administrative Science Quarterly, 1977, 22, 46-56.

Steers, R.M., & Rhodes, S.R. Major influences on employee attendance: A process model. Journal of Applied Psychology, 1978, 63, 391-407.

Terborg, J.R. Women in management: A research review. Journal of Applied Psychology, 1977, 62, 647-664.

Waters, L.K., & Roach, D. Job attitudes as predictors of termination and absenteeism: Consistency overtime and across organizations. Journal of Applied Psychology, 1973, 57, 341-342.

Footnote

This study was supported in part through Grant No. N00014-78-C-0756 from the Office of Naval Research, James R. Terborg, principal investigator. We thank R.J. Bullock and R. Katerberg for comments and suggestions. Requests for reprints should be addressed to James R. Terborg, Department of Psychology, University of Houston, Houston, Texas 77004.

Table 1

Variable Means, Standard Deviations and Intercorrelations[1]

	Variable	$\bar{X}$	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Status[2]	1.47	.50													
2	Sex[3]	1.67	.46	.21												
3	Age	37.26	12.19	-.12	.22											
4	Tenure	6.83	5.82	-.37	-.02	.52										
5	Family Size	1.03	1.28	.09	.08	.01	-.02									
6	Distance to Work	2.98	1.33	-.26	-.17	.03	.13	.07								
7	JDI Work	34.72	8.95	-.08	.15	.19	.01	.12	-.08							
8	JDI Pay	28.61	13.53	-.07	.10	.08	.05	.04	-.11	.35						
9	JDI Promotion	24.31	17.24	-.10	-.08	-.10	-.07	.14	.02	.39	.33					
10	JDI Supervision	42.56	11.04	.03	.10	.04	-.09	.07	-.08	.31	.19	.29				
11	JDI Coworkers	41.72	10.28	.03	.11	.04	-.10	.10	-.18	.35	.21	.19	.19			
12	Commitment	61.22	9.92	.04	.20	.21	-.03	.08	-.11	.56	.34	.36	.41	.29		
13	Faces	5.28	1.83	.01	-.02	-.18	-.17	.18	-.14	.23	.09	.28	.15	.11	.31	
14	Absenteeism	.36	.92	.02	.03	-.19	-.16	-.05	.01	-.12	-.20	-.07	.01	-.14	-.11	.02

[1] With N = 259, $r \geq .11$, $p < .05$. [2] Full-time =1; Part-time =2 [3] Male = 1; Female = 2

Table 2

Regression Results for the Prediction of Absenteeism (N=259)[1]

Variables in Step 1	R^2 Change	Variables in Step 2	R^2 Change	Variables in Step 3	R^2 Change
Store	.07*	Attitudes	.04	Demographics	.04
Store	.07*	Demographics	.04	Attitudes	.04
Attitudes	.06*	Store	.05	Demographics	.04
Attitudes	.06*	Demographics	.05*	Store	.04
Demographics	.06*	Store	.06*	Attitudes	.03
Demographics	.06*	Attitudes	.05*	Store	.04

[1]The seven stores were dummy coded, attitudes were the five JDI scales plus Porter's Commitment scale and the Faces scale, and demographics were job status, age, sex, tenure, family size and distance from work. R^2 for the full model was .15 ($p < .05$).

* $p < .05$

DISTRIBUTION LIST

LIST 1
MANDATORY

Defense Documentation Center (12 copies)
ATTN: DDC-TC
Accessions Division
Cameron Station
Alexandria, VA 22314

Library of Congress
Science and Technology Division
Washington, DC 20540

Chief of Naval Research (3 copies)
Office of Naval Research
Code 452
800 N. Quincy Street
Arlington, VA 22217

Commanding Officer (6 copies)
Naval Research Laboratory
Code 2627
Washington, DC 20375

LIST 2
ONR FIELD

Commanding Officer
ONR Branch Office
1030 E. Green Street
Pasadena, CA 91106

Psychologist
ONR Branch Office
1030 E. Green Street
Pasadena, CA 91106

Commanding Officer
ONR Branch Office
536 S. Clark Street
Chicago, IL 60605

Psychologist
ONR Branch Office
536 S. Clark Street
Chicago, IL 60605

Commanding Officer
ONR Branch Office
Bldg. 114, Section D
666 Summer Street
Boston, MA 02210

Psychologist
ONR Branch Office
Bldg. 114, Section D
666 Summer Street
Boston, MA 02210

Office of Naval Research
Director, Technology Programs
Code 200
800 N. Quincy Street
Arlington, VA 22217

LIST 3
OPNAV

Deputy Chief of Naval Operations
(Manpower, Personnel, and Training)
Scientific Advisor to DCNO (Op-01T)
2705 Arlington Annex
Washington, DC 20350

Deputy Chief of Naval Operations
(Manpower, Personnel, and Training)
Director, Human Resource Management
Division (Op-15)
Department of the Navy
Washington, DC 20350

Deputy Chief of Naval Operations
(Manpower, Personnel, and Training)
Head, Research, Development, and
Studies Branch (Op-102)
1812 Arlington Annex
Washington, DC 20350

Deputy Chief of Naval Operations
(Manpower, Personnel, and Training)
Director, Human Resource Management
Plans and Policy Branch (Op-150)
Department of the Navy
Washington, DC 20350

Chief of Naval Operations
Head, Manpower, Personnel, Training
and Reserves Team (Op-964D)
The Pentagon, 4A578
Washington, DC 20350

Chief of Naval Operations
Assistant, Personnel Logistics
Planning (Op-987P10)
The Pentagon, 5D772
Washington, DC 20350

LIST 4
NAVMAT & NPRDC

NAVMAT

Naval Material Command
Program Administrator, Manpower,
Personnel, and Training
Code 08T244
1044 Crystal Plaza #5
Washington, DC 20360

Naval Material Command
Management Training Center
NMAT 09M32
Jefferson Plaza, Bldg #2, Rm 150
1421 Jefferson Davis Highway
Arlington, VA 20360

NPRDC

Commanding Officer (5 copies)
Naval Personnel R&D Center
San Diego, CA 92152

Navy Personnel R&D Center
Washington Liaison Office
Building 200, 2N
Washington Navy Yard
Washington, DC 20374

LIST 5
BUMED

Commanding Officer
Naval Health Research Center
San Diego, CA

Commanding Officer
Naval Submarine Medical
Research Laboratory
Naval Submarine Base
New London, Box 900
Groton, CT 06340

Director, Medical Service Corps
Bureau of Medicine and Surgery
Code 23
Department of the Navy
Washington, DC 20372

Naval Aerospace Medical
Research Lab
Naval Air Station
Pensacola, FL 32508

CDR Robert Kennedy
Officer in Charge
Naval Aerospace Medical
Research Laboratory Detachment
Box 2940, Michoud Station
New Orleans, LA 70129

National Naval Medical Center
Psychology Department
Bethesda, MD 20014

Commanding Officer
Navy Medical R&D Command
Bethesda, MD 20014

LIST 6
NAVAL POSTGRADUATE SCHOOL

Naval Postgraduate School
ATTN: Dr. Richard S. Elster
Department of Administrative Sciences
Monterey, CA 93940

Naval Postgraduate School
ATTN: Professor John Senger
Operations Research and
Administrative Science
Monterey, CA 93940

Superintendent
Naval Postgraduate School
Code 1424
Monterey, CA 93940

LIST 7
HRM

Officer in Charge
Human Resource Management Detachment
Naval Air Station
Alameda, CA 94591

Officer in Charge
Human Resource Management Detachment
Naval Submarine Base New London
P.O. Box 81
Groton, CT 06340

Officer in Charge
Human Resource Management Division
Naval Air Station
Mayport, FL 32228

Commanding Officer
Human Resource Management Center
Pearl Harbor, HI 96860

Commander in Chief
Human Resource Management Division
U.S. Pacific Fleet
Pearl Harbor, HI 96860

Officer in Charge
Human Resource Management Detachment
Naval Base
Charleston, SC 29408

Commanding Officer
Human Resource Management School
Naval Air Station Memphis
Millington, TN 38054

Human Resource Management School
Naval Air Station Memphis (96)
Millington, TN 38054

Commanding Officer
Human Resource Management Center
1300 Wilson Boulevard
Arlington, VA 22209

Commanding Officer
Human Resource Management Center
5621-23 Tidewater Drive
Norfolk, VA 23511

Commander in Chief
Human Resource Management Division
U.S. Atlantic Fleet
Norfolk, VA 23511

Officer in Charge
Human Resource Management Detachment
Naval Air Station Ehidbey Island
Oak Harbor, WA 98278

Commanding Officer
Human Resource Management Center
Box 23
FPO New York 09510

Commander in Chief
Human Resource Management Division
U.S. Naval Force Europe
FPO New York 09510

Officer in Charge
Human Resource Management Detachment
Box 60
FPO San Francisco 96651

Officer in Charge
Human Resource Management Detachment
COMNAVFORJAPAN
FPO Seattle 98762

LIST 8
NAVY MISCELLANEOUS

Naval Amphibious School
Director, Human Resource
Training Department
Naval Amphibious Base
Little Creek
Norfolk, VA 23521

Chief of Naval Education
and Training (N-5)
ACOS Research and Program
Development
Naval Air Station
Pensacola, FL 32508

Naval Military Personnel Command (2 copies)
HRM Department (NMPC-6)
Washington, DC 20350

Navy Recruiting Command
Head, Research and Analysis Branch
Code 434, Room 8001
801 North Randolph Street
Arlington, VA 22203

Chief of Naval Technical Training
ATTN: Dr. Norman Kerr, Code 0161
NAS Memphis (75)
Millington, TN 38054

Naval Training Analysis
and Evaluation Group
Orlando, FL 32813

Commanding Officer
Naval Training Equipment Center
Orlando, FL 32813

Naval War College
Management Department
Newport, RI 02940

LIST 9
USMC

Commandant of the Marine Corps
Headquarters, U.S. Marine Corps
Code MPI-20
Washington, DC 20380

Headquarters, U.S. Marine Corps
ATTN: Dr. A. L. Slafkosky,
Code RD-1
Washington, DC 20380

LIST 11
OTHER FEDERAL GOVERNMENT

National Institute of Education
Educational Equity Grants Program
1200 19th Street, N.W.
Washington, DC 20208

National Institute of Education
ATTN: Dr. Fritz Muhlhauser
EOLC/SMO
1200 19th Street, N.W.
Washington, DC 20208

National Institute of Mental Health
Minority Group Mental Health Programs
Room 7 - 102
5600 Fishers Lane
Rockville, MD 20852

Office of Personnel Management
Organizational Psychology Branch
1900 E Street, NW.
Washington, DC 20415

Chief, Psychological Research Branch
ATTN: Mr. Richard Lanterman
U.S. Coast Guard (G-P-1/2/62)
Washington, DC 20590

Social and Developmental Psychology
Program
National Science Foundation
Washington, DC 20550

LIST 12
ARMY

Army Research Institute
Field Unit - Monterey
P.O. Box 5787
Monterey, CA 93940

Deputy Chief of Staff for
Personnel, Research Office
ATTN: DAPE-PBR
Washington, DC 20310

Headquarters, FORSCOM
ATTN: AFPR-HR
Ft. McPherson, GA 30330

Army Research Institute
Field Unit - Leavenworth
P.O. Box 3122
Fort Leavenworth, KS 66027

Technical Director (2 copies)
Army Research Institute
5001 Eisenhower Avenue
Alexandria, VA 22333

LIST 13
AIR FORCE

Air University Library/LSE 76-443
Maxwell AFB, AL 36112

AFOSR/NL (Dr. Fregly)
Building 410
Bolling AFB
Washington, DC 20332

Air Force Institute of Technology
AFIT/LSGR (Lt. Col. Umstot)
Wright-Patterson AFB
Dayton, OH 45433

Technical Director
AFHRL/ORS
Brooks AFB
San Antonio, TX 78235

AFMPC/DPMYP
(Research and Measurement Division)
Randolph AFB
Universal City, TX 78148

LIST '5
CURRENT CONTRACTORS

Dr. Clayton P. Alderfer
School of Organization
and Management
Yale University
New Haven, CT 06520

Dr. H. Russell Bernard
Department of Sociology
and Anthropology
West Virginia University
Morgantown, WV 26506

Dr. Arthur Blaiwes
Human Factors Laboratory, Code N-71
Naval Training Equipment Center
Orlando, FL 32813

Dr. Michael Borus
Ohio State University
Columbus, OH 43210

Dr. Joseph V. Brady
The Johns Hopkins University
School of Medicine
Division of Behavioral Biology
Baltimore, MD 21205

Mr. Frank Clark
ADTECH/Advanced Technology, Inc.
7923 Jones Branch Drive, Suite 500
McLean, VA 22102

Dr. Stuart W. Cook
University of Colorado
Institute of Behavioral Science
Boulder, CO 80309

Mr. Gerald M. Crean
Westinghouse National Issues
Center
Suite 1111
2341 Jefferson Davis Highway
Arlington, VA 22202

Dr. Larry Cummings
University of Wisconsin-Madison
Graduate School of Business
Center for the Study of
Organizational Performance
1155 Observatory Drive
Madison, WI 53706

Dr. John P. French, Jr.
University of Michigan
Institute for Social Research
P.O. Box 1248
Ann Arbor, MI 48106

Dr. Paul S. Goodman
Graduate School of Industrial
Administration
Carnegie-Mellon University
Pittsburgh, PA 15213

Dr. J. Richard Hackman
School of Organization
and Management
Yale University
56 Hillhouse Avenue
New Haven, CT 06520

Dr. Asa G. Hilliard, Jr.
The Urban Institute for
Human Services, Inc.
P.O. Box 15068
San Francisco, CA 94115

Dr. Charles L. Hulin
Department of Psychology
University of Illinois
Champaign, IL 61820

Dr. Edna J. Hunter
United States International
University
School of Human Behavior
P.O. Box 26110
San Diego, CA 92126

Dr. Rudi Klauss
Syracuse University
Public Administration Department
Maxwell School
Syracuse, NY 13210

Dr. Judi Komaki
Georgia Institute of Technology
Engineering Experiment Station
Atlanta, GA 30332

Dr. Edward E. Lawler
Battelle Human Affairs
Research Centers
P.O. Box 5395
4000 N.E., 41st Street
Seattle, WA 98105

Dr. Edwin A. Locke
University of Maryland
College of Business and Management
and Department of Psychology
College Park, MD 20742

Dr. Ben Morgan
Performance Assessment
Laboratory
Old Dominion University
Norfolk, VA 23508

Dr. Richard T. Mowday
Graduate School of Management
and Business
University of Oregon
Eugene, OR 97403

Dr. Joseph Olmstead
Human Resources Research
Organization
300 North Washington Street
Alexandria, VA 22314

Dr. Thomas M. Ostrom
The Ohio State University
Department of Psychology
116E Stadium
404C West 17th Avenue
Columbus, OH 43210

LIST 15 (Continued)

Dr. George E. Rowland
Temple University, The Merit Center
Ritter Annex, 9th Floor
College of Education
Philadephia, PA 19122

Dr. Irvin G. Sarason
University of Washington
Department of Psychology
Seattle, WA 98195

Dr. Benjamin Schneider
Michigan State University
East Lansing, MI 48824

Dr. Saul B. Sells
Texas Christian University
Institute of Behavioral Research
Drawer C
Fort Worth, TX 76129

Dr. H. Wallace Sinaiko
Program Director, Manpower Research
and Advisory Services
Smithsonian Institution
801 N. Pitt Street, Suite 120
Alexandria, VA 22314

Dr. Richard Steers
Graduate School of Management
and Business
University of Oregon
Eugene, OR 97403

Dr. Arthur Stone
State University of New York
at Stony Brook
Department of Psychology
Stony Brook, NY 11794

Dr. James R. Terborg
University of Houston
Department of Psychology
Houston, TX 77004

Drs. P. Thorndyke and M. Weiner
The Rand Corporation
1700 Main Street
Santa Monica, CA 90406

Dr. Howard M. Weiss
Purdue University
Department of Psychological
Sciences
West Lafayette, IN 47907

Dr. Philip G. Zimbardo
Stanford University
Department of Psychology
Stanford, CA 94305